

Correspondence

Anesthesiology
50:168, 1979

Double-orifice Epidural Catheters Safe

To the Editor:—In reporting the hazard of using a double-orifice epidural catheter, Ward *et al.* completely missed the point.¹ The fact that the catheter had a single or double orifice was irrelevant. The important point was that the individual injecting the solution failed to aspirate for CSF due to an untimely correction of a kink in the catheter. Therefore, this accident was secondary to human error and not to any technical deficiencies in the catheter.

Double-orifice catheters have some theoretical advantages: a given injection should have a wider distribution in the epidural space; intravascular injections would be less likely to occur provided the proximal orifice remained extravascular; if the distal orifice entered the subarachnoid space accidentally and the proximal one remained in the epidural space, most of the solution would enter the epidural space because of the pressure differential.²

Anesthesiology
50:168, 1979

In reply:—We thank Dr. Finucane for his remarks on our case report. In response to his first comment, as we stated, the catheter was aspirated prior to each test dose, and a test dose was given prior to each reinjection. If Dr. Finucane is suggesting aspiration after the kink was suddenly relieved, even if thought of, this would be nearly impossible in mid-injection.

Regarding the supposed advantages of multiple-orifice catheters, we do not think that less than 1 cm separation between orifices allows for clinically significantly wider distribution of anesthesia; we contend it is far superior to know the catheter is intravascular than to depend on the proximal orifice for protection. By similar logic, we prefer to be aware of subarachnoid placement rather than hope that "most" of the drug is deposited epidurally.

Our experience with total spinal anesthesia occurring suddenly and late in the course of use of a continuous epidural technique is limited, and, at the time of resuscitation, we were uncertain of the exact cause of the collapse. The injection of dye through the

Finally, the authors had ample evidence that the catheter was in the subarachnoid space and, therefore, I do not believe it was necessary to inject the contrast material, particularly when the patient was recovering from a recent cardiac arrest.

BRENDAN T. FINUCANE, M.D.
*Associate Professor of Anesthesiology
Emory University School of Medicine
Atlanta, Georgia 30322*

REFERENCES

1. Ward CF, Osborne R, Benumof JL, et al: A hazard of double-orifice epidural catheters. *ANESTHESIOLOGY* 48:362-364, 1978
2. Dogliotti AM: A new method of block anesthesia: Segmental peridural anesthesia. *Am J Surg* 20:107, 1933

(Accepted for publication August 3, 1978.)

catheter in no way interfered with efforts to revive this patient, and did help to confirm the diagnosis.

Finally, the central issue of our report is that multiple-orifice catheters have an additional and, in our opinion, unnecessary, hazard, which exceeds any known benefits. We therefore maintain the position that they should, if possible, not be used to provide continuous peridural anesthesia.

C. F. WARD, M.D.
Assistant Professor
JONATHAN L. BENUMOF, M.D.
Associate Professor
LAWRENCE J. SAIDMAN, M.D.
Professor and Chairman
*Department of Anesthesiology
University of California, San Diego
University Hospital
225 West Dickinson Street
San Diego, California 92103*

(Accepted for publication August 3, 1978.)